GERMANY'S GREEN DOT PROGRAM

Introduction

In 1991, Germany established the Ordinance on the Avoidance of Packaging Waste (Packaging Ordinance). According to the Packaging Ordinance, domestic and foreign manufacturers and distributors are required to take back all transport packaging such as crates, drums, pallets, and styrofoam containers (i.e., primary packaging) and recycle or reuse these materials. In 1992, these regulations were expanded to include all secondary packaging. Accordingly, manufacturers, distributors, and retailers are now required to take back and recycle secondary packaging (e.g., cardboard boxes, blister packs, and other product packaging such as that used to prevent theft, for protection, and for promotional purposes) from consumers. Since 1993, however, the Ordinance was further expanded to included *all* types of consumer packaging used to contain and transport goods from the point of sale to consumption. The most recent regulations created an option that exempts manufacturers from these regulations.

Specifically, the Packaging Ordinance states that manufacturers, retailers, and distributors (both domestic and foreign) may be exempt from taking back packaging if they participate in an established national waste management program. Such a program had been in existence in Germany since 1990, under the Duales System Deutschland GmbH (Dual System of Germany). The Duales System is a non-profit organization set up to collect, sort, and recycle post-consumer packaging from both households and small businesses throughout the country. By participating in the Duales System program, manufacturers may label their products with the Green Dot. A Green Dot indicates to the consumer that the manufacturer of the product participates in the program, and that instead of returning the packaging to the manufacturer or distributor, the packaging should be collected, sorted, and recycled through the Duales System program.

The new packaging laws in Germany have been successful in reducing packaging and encouraging the use of recycled and re-fillable packaging. Foreign companies have expressed concern, however, that these laws are a possible trade barrier. The claim has also been made that Germany is developing and implementing these packaging laws without consultation from or concern for the European Community and its goal for a Single European Market.

Recent Developments

The program reports that there have been no major changes in the methodology by which the Green Dot is granted since 1995.

Program Summary

Although the Green Dot operates as a response by industry and trade associations to avoid individual take-back regulations, its overall goal is the prevention of excess, unnecessary waste. In this regard the Green Dot fee structure acts as an incentive for manufacturers to reduce the amount

of packaging they use for their products in the design of products and packaging. Manufacturers wishing to obtain the Green Dot must pay a license fee to the Duales System. Fees are based on the type and weight of the packaging materials. In general, the heavier and more difficult it is to recycle the packaging, the higher the license fees. Fees vary according to the packaging materials, with plastics having the highest fees and natural materials and glass having the lowest fees. License fees range from about DM 3.00/kg to DM 0.15/kg (\$1.70 US to \$0.08 US).

The Duales System collects glass, paper, cardboard, and lightweight materials such as polystyrene, plastic, beverage containers, composites made of a mixture of materials, aluminum, and tin-plate. The Duales System has established two types of collection systems, which can be modified to accommodate existing local and regional collection systems. The first, and most widespread, is the curbside system where consumers collect Green Dot packages (except glass, paper, and cardboard) in the yellow bags or bins provided to their households. The bags/bins are placed on the curbside to be collected during the regular garbage pick-up. Glass, paper, and cardboard are collected separately in special bins/containers set up in the neighborhood -- glass is often separated according to color. In the curbside system, the consumer does the basic initial sorting of the packaging. The alternate system is the "bring" system where consumers bring all their waste packaging to central collection stations. Under the "bring" system all packaging is sorted by Duales System employees into different bins, which are set up for the different packaging materials.

Once collected, the materials are sorted by waste management companies under contract to the Duales System. Once the materials have been sorted, they are ready to be shipped to recycling facilities. According to the Duales System Deutschland GmbH, the recycling goals set by the Packaging Ordinance have been met since the Green Dot program began. Since 1992, one year after the Packaging Ordinance went into effect, the weight of packaging consumed (i.e., not for recycling) in Germany has steadily declined. Because of the take-back requirements set by the Ordinance, and the license fee structure, manufacturers have been motivated to reduce the weight of their packaging in order to reduce their eventual recycling costs.

Program Methodology

The Duales System collects glass, paper, cardboard, and lightweight materials such as polystyrene, plastic, beverage containers, composites made of a mixture of materials, aluminum, and tin-plate. These product categories were chosen based on evaluations of their environmental impacts, as well as their potential for reuse and recyclability. The Duales System establishes criteria for these product categories, which manufacturers must adhere to for their packaging materials in order to be part of the program. That is, packaging made with paper products must meet certain standards set by the program in order for that packaging to be awarded the Green Dot, and therefore be accepted for recycling through the program. Product criteria are based on previous studies conducted for

these product categories, as well as information from other programs' life-cycle assessments for the categories, independent testing, and information from producers themselves. Criteria are peer-reviewed, and peer-reviewed critiques and Duales System's responses to them are available to the public.

Other Information

Unless companies participate in the Green Dot program, they are required to take back their packaging according to the Packaging Ordinance. This take-back burden is far greater for companies that ship their products long distances to Germany -- they conceivably pay the transportation costs of shipping the packaging back to the country of origin. Many exporting countries, particularly developing countries, may not have the infrastructure or the technical ability to meet all the packaging standards set by Germany. One alternative that foreign companies may opt for is hiring a German company to overcome the cost burden or to meet the standards. For example, the German company would be responsible for packaging the imported good(s) in Germany so that they comply with local requirements. In addition, the company would take back the returned packaging.

Although foreign products are not required to carry the Green Dot, many manufacturers exporting to Germany claim that the domestic demand for the Green Dot label places imported goods at a market disadvantage. (European Union based importers can also apply for the Green Dot.) Additionally, distributors and retailers may shy away from foreign products without the Green Dot because otherwise the responsibility of recycling the packaging falls on the distributors/retailers.

References

Federal Government of Germany, 1991, Ordinance on the Avoidance of Packaging Waste (Packaging Ordinance - Verpackungsverordnung - VerpackVO) of 12 June, 1991.

Duales System Deutschland GmbH, March 1996, Recycling Data - Techniques and Trends.

Duales System Deutschland GmbH, May 1996, *Changes and Developments - Plastics Recycling Today*.

Duales System Deutschland GmbH, December 1996, Info-Grafik: Green Dot License Fees.

Duales System Deutschland GmbH, April, 1997, Press Information: Green Dot Presents 1996 Materials Mass Flow Verification.

Duales System Deutschland GmbH, January, 1996, *Life-Cycle Analysis on Recycling and Recovery of Post-Consumer Plastics*.

Bernhardt, K., 1992, Germany's New Packaging Laws: The "Green Dot" Arrives, Business

America, vol. 113, no. 4, pp. 36-37.

Cotter, M. J., Henley, J. A. Jr., 1995, *Germany's "New" International Strategic Weapon: Environmentalism*, Multinational Business Review, vol. 3, no. 1, pp. 93-97.